

## Study of CP violation in $B_s \rightarrow J/\psi \phi$ decays at CDF

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The first measurement of CP violation phase  $\beta_s$  in  $B_s \rightarrow J/\psi \phi$  decays in 2007 generated considerable interest. The interest was caused by the small deviation from the SM. While not sufficiently significant, together with other measurements it is suggestive of a possible new physics contribution. In the subsequent update using 2.8 fb<sup>-1</sup> of data collected by CDF II detector deviation from the SM further increased. We present latest CDF results on the mean decay width  $\Gamma_s$  and CP violating phase  $\beta_s$ , based on an angular- and time-dependent analysis of the  $B_s \rightarrow J/\psi \phi$  decays, including determination of the flavor of the  $B_s$  meson at production time.

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